



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GE90-85B BYPASS RATIO: 8.4
 UNIQUE ID NUMBER: 9GE126 PRESSURE RATIO (π_{00}): 38.2
 COMBUSTOR: PEC
 ENGINE TYPE: TF RATED THRUST (F_{00}) (kN): 397.2

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	4.7	42.7	68.1	2.2
AS % OF ORIGINAL LIMIT	24.0	36.2	58.6	13.7
AS % OF CAEP/2 LIMIT (NO _x)			73.2	
AS % OF CAEP/4 LIMIT (NO _x)			81.8	
AS % OF CAEP/6 LIMIT (NO _x)			90.5	
AS % OF CAEP/8 LIMIT (NO _x)			102.6	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	3.131	0.04	0.30	45.54	1.7
CLIMB OUT	85	2.2	2.553	0.03	0.31	36.35	0.7
APPROACH	30	4.0	0.804	0.06	2.16	14.77	1.3
IDLE	7	26.0	0.271	2.80	31.34	5.33	1.2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1085	1212	13832	23351	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				3.1	34.8	58.8	1.7
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.3	1.1	0.6	0.5
RANGE (D _p /F ₀₀ in g/kN, or SN)				2.87-3.38	34.04-36.08	58.19-59.41	1.28-2.19

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT All POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT All POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.4-98.7
TEMPERATURE (K)	277.2-281.3
ABS HUMIDITY (kg/kg)	0.0015-0.0043

FUEL

SPEC	Jet A-1
H/C	
AROM (%)	15-16

MANUFACTURER: General Electric Company
 TEST ORGANIZATION: General Electric Peebles Test Operation
 TEST LOCATION: Site 6A
 TEST DATES: 30/11/2007-08/12/2007

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

- GE Aviation Report R2007AE851
- Engine serial number 900-505/1
- Turbomachinery incorporating 3D aero
- Performance Enhanced Combustor (PEC)
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)